

SEQUENCE LISTING

<110> Cohen, Philip
Kobayashi, Takayasu
Deak, Maria

<120> Methods

<130> 002.00160

<140> US 09/868,131

<141> 2002-04-11

<150> PCT/GB99/04232

<151> 1999-12-14

<150> GB 9919676.8

<151> 1999-08-19

<150> US 60/112,217

<151> 1998-12-14

<160> 44

<170> PatentIn Ver. 2.1

<210> 1

<211> 367

<212> PRT

<213> Homo sapiens

<400> 1

Met Asn Ser Ser Pro Ala Gly Thr Pro Ser Pro Gln Pro Ser Arg Ala
1 5 10 15

Asn Gly Asn Ile Asn Leu Gly Pro Ser Ala Asn Pro Asn Ala Gln Pro
20 25 30

Thr Asp Phe Asp Phe Leu Lys Val Ile Gly Lys Gly Asn Tyr Gly Lys
35 40 45

Val Leu Leu Ala Lys Arg Lys Ser Asp Gly Ala Phe Tyr Ala Val Lys
50 55 60

Val Leu Gln Lys Lys Ser Ile Leu Lys Lys Lys Glu Gln Ser His Ile
65 70 75 80

Met Ala Glu Arg Ser Val Leu Leu Lys Asn Val Arg His Pro Phe Leu

					85					90					95				
Val	Gly	Leu	Arg	Tyr	Ser	Phe	Gln	Thr	Pro	Glu	Lys	Leu	Tyr	Phe	Val				
			100						105			110							
Leu	Asp	Tyr	Val	Asn	Gly	Gly	Glu	Leu	Phe	Phe	His	Leu	Gln	Arg	Glu				
			115						120			125							
Arg	Arg	Phe	Leu	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Ala	Ala	Glu	Val	Ala				
			130						135			140							
Ser	Ala	Ile	Gly	Tyr	Leu	His	Ser	Leu	Asn	Ile	Ile	Tyr	Arg	Asp	Leu				
145						150						155			160				
Lys	Pro	Glu	Asn	Ile	Leu	Leu	Asp	Cys	Gln	Gly	His	Val	Val	Leu	Thr				
			165						170						175				
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Gly	Val	Glu	Pro	Glu	Asp	Thr	Thr	Ser				
			180						185						190				
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val	Leu	Arg	Lys				
			195						200						205				
Glu	Pro	Tyr	Asp	Arg	Ala	Val	Asp	Trp	Trp	Cys	Leu	Gly	Ala	Val	Leu				
210						215						220							
Tyr	Glu	Met	Leu	His	Gly	Leu	Pro	Pro	Phe	Tyr	Ser	Gln	Asp	Val	Ser				
225						230						235			240				
Gln	Met	Tyr	Glu	Asn	Ile	Leu	His	Gln	Pro	Leu	Gln	Ile	Pro	Gly	Gly				
			245						250						255				
Arg	Thr	Val	Ala	Ala	Cys	Asp	Leu	Leu	Gln	Ser	Leu	Leu	His	Lys	Asp				
			260						265						270				
Gln	Arg	Gln	Arg	Leu	Gly	Ser	Lys	Ala	Asp	Phe	Leu	Glu	Ile	Lys	Asn				
275						280						285							
His	Val	Phe	Phe	Ser	Pro	Ile	Asn	Trp	Asp	Asp	Leu	Tyr	His	Lys	Arg				
290						295						300							
Leu	Thr	Pro	Pro	Phe	Asn	Pro	Asn	Val	Thr	Gly	Pro	Ala	Asp	Leu	Lys				
305						310						315			320				
His	Phe	Asp	Pro	Glu	Phe	Thr	Gln	Glu	Ala	Val	Ser	Lys	Ser	Ile	Gly				
			325						330						335				
Cys	Thr	Pro	Asp	Thr	Val	Ala	Ser	Ser	Ser	Gly	Ala	Ser	Ser	Ala	Phe				

340 345 350
 Leu Gly Phe Ser Tyr Ala Pro Glu Asp Asp Asp Ile Leu Asp Cys
 355 360 365

<210> 2
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:synthetic
 peptide

<400> 2
 Asn Glu Glu His Asn Ser Thr Thr Ser Thr Phe Cys Gly Thr Pro Glu
 1 5 10 15

<210> 3
 <211> 367
 <212> PRT
 <213> Mus musculus

<400> 3
 Met Ala Ser Ser Pro Val Gly Val Pro Ser Pro Gln Pro Ser Arg Ala
 1 5 10 15

Asn Gly Asn Ile Asn Leu Gly Pro Ser Ala Asn Pro Asn Ala Arg Pro
 20 25 30

Thr Asp Phe Asp Phe Leu Lys Val Ile Gly Lys Gly Asn Tyr Gly Lys
 35 40 45

Val Leu Leu Ala Lys Arg Lys Ser Asp Gly Ala Phe Tyr Ala Val Lys
 50 55 60

Val Leu Gln Lys Lys Ser Ile Leu Lys Asn Lys Glu Gln Asn His Ile
 65 70 75 80

Met Ala Glu Arg Asn Val Leu Leu Lys Asn Val Arg His Pro Phe Leu
 85 90 95

Val Gly Leu Arg Tyr Ser Phe Gln Thr Pro Glu Lys Leu Tyr Phe Val
 100 105 110

Leu Asp Tyr Val Asn Gly Gly Glu Leu Phe Phe His Leu Gln Arg Glu

115						120						125					
Arg	Arg	Phe	Leu	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Thr	Ala	Glu	Val	Ala		
130						135						140					
Ser	Ala	Ile	Gly	Tyr	Leu	His	Ser	Leu	Asn	Ile	Ile	Tyr	Arg	Asp	Leu		
145						150				155				160			
Lys	Pro	Glu	Asn	Ile	Leu	Leu	Asp	Cys	Gln	Gly	His	Val	Val	Leu	Thr		
			165						170			175					
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Cys	Val	Glu	Pro	Glu	Glu	Thr	Thr	Ser		
			180						185			190					
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val	Leu	Arg	Lys		
195						200						205					
Glu	Pro	Tyr	Asp	Arg	Ala	Val	Asp	Trp	Trp	Cys	Leu	Gly	Ala	Val	Leu		
210						215						220					
Tyr	Glu	Met	Leu	His	Gly	Leu	Pro	Pro	Phe	Phe	Asn	Thr	Asp	Val	Ala		
225				230				235						240			
Gln	Met	Tyr	Glu	Asn	Ile	Leu	His	Gln	Pro	Leu	Gln	Ile	Pro	Gly	Gly		
			245						250			255					
Arg	Thr	Val	Ala	Ala	Cys	Asp	Leu	Leu	Gln	Gly	Leu	Leu	His	Lys	Asp		
			260						265			270					
Gln	Arg	Gln	Arg	Leu	Gly	Ser	Lys	Glu	Asp	Phe	Leu	Asp	Ile	Lys	Asn		
275						280						285					
His	Met	Phe	Phe	Ser	Pro	Ile	Asn	Trp	Asp	Asp	Leu	Tyr	His	Lys	Arg		
290						295						300					
Leu	Thr	Pro	Pro	Phe	Asn	Pro	Asn	Val	Glu	Gly	Pro	Ala	Asp	Leu	Lys		
305				310				315						320			
His	Phe	Asp	Pro	Glu	Phe	Thr	Gln	Glu	Ala	Val	Ser	Lys	Ser	Ile	Gly		
			325						330			335					
Cys	Thr	Pro	Asp	Thr	Val	Ala	Ser	Ser	Ser	Gly	Ala	Ser	Ser	Ala	Phe		
			340						345			350					
Leu	Gly	Phe	Ser	Tyr	Ala	Gln	Asp	Asp	Asp	Asp	Ile	Leu	Asp	Ser			
355						360						365					

<210> 4

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4

Met Ala Leu Lys Ile Pro Ala Lys Arg Ile Phe Gly Asp Asn Phe Asp
1 5 10 15

Pro Asp Phe Ile Lys Gln Arg Arg Ala Gly Leu Asn Glu Phe Ile Gln
20 25 30

Asn Leu Val Arg Tyr Pro Glu Leu Tyr Asn His Pro Asp Val Arg Ala
35 40 45

Phe Leu Gln Met Asp Ser Pro Lys His Gln Ser Asp Pro Ser Glu Asp
50 55 60

Glu Asp Glu Arg Ser Ser Gln Lys Leu His Ser Thr Ser Gln Asn Ile
65 70 75 80

Asn Leu Gly Pro Ser Gly Asn Pro His Ala Lys Pro Thr Asp Phe Asp
85 90 95

Phe Leu Lys Val Ile Gly Lys Gly Ser Phe Gly Lys Val Leu Leu Ala
100 105 110

Lys Arg Lys Leu Asp Gly Lys Phe Tyr Ala Val Lys Val Leu Gln Lys
115 120 125

Lys Ile Val Leu Asn Arg Lys Glu Gln Lys His Ile Met Ala Glu Arg
130 135 140

Asn Val Leu Leu Lys Asn Val Lys His Pro Phe Leu Val Gly Leu His
145 150 155 160

Tyr Ser Phe Gln Thr Thr Glu Lys Leu Tyr Phe Val Leu Asp Phe Val
165 170 175

Asn Gly Gly Glu Leu Phe Phe His Leu Gln Arg Glu Arg Ser Phe Pro
180 185 190

Glu His Arg Ala Arg Phe Tyr Ala Ala Glu Ile Ala Ser Ala Leu Gly
195 200 205

Tyr Leu His Ser Ile Lys Ile Val Tyr Arg Asp Leu Lys Pro Glu Asn
210 215 220

Ile Leu Leu Asp Ser Val Gly His Val Val Leu Thr Asp Phe Gly Leu
 225 230 235 240

Cys Lys Glu Gly Ile Ala Ile Ser Asp Thr Thr Thr Thr Phe Cys Gly
 245 250 255

Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Arg Lys Gln Pro Tyr Asp
 260 265 270

Asn Thr Val Asp Trp Trp Cys Leu Gly Ala Val Leu Tyr Glu Met Leu
 275 280 285

Tyr Gly Leu Pro Pro Phe Tyr Cys Arg Asp Val Ala Glu Met Tyr Asp
 290 295 300

Asn Ile Leu His Lys Pro Leu Ser Leu Arg Pro Gly Val Ser Leu Thr
 305 310 315 320

Ala Trp Ser Ile Leu Glu Glu Leu Leu Glu Lys Asp Arg Gln Asn Arg
 325 330 335

Leu Gly Ala Lys Glu Asp Phe Leu Glu Ile Gln Asn His Pro Phe Phe
 340 345 350

Glu Ser Leu Ser Trp Ala Asp Leu Val Gln Lys Lys Ile Pro Pro Pro
 355 360 365

Phe Asn Pro Asn Val Ala Gly Pro Asp Asp Ile Arg Asn Phe Asp Thr
 370 375 380

Ala Phe Thr Glu Glu Thr Val Pro Tyr Ser Val Cys Val Ser Ser Asp
 385 390 395 400

Tyr Ser Ile Val Asn Ala Ser Val Leu Glu Ala Asp Asp Ala Phe Val
 405 410 415

Gly Phe Ser Tyr Ala Pro Pro Ser Glu Asp Leu Phe Leu
 420 425

<210> 5

<211> 2146

<212> DNA

<213> Homo sapiens

<400> 5

atgggttcag actttatgcc ctgaaaagat ccttcacagc ctggccatct tggacttctg 60
 gagctaccct ggctcacagg ggtcttggtg ccctgggtgt cccagttct tgaaaagaat 120

```

cagcctggga ggggccacac cctgaccatc cccctttatc ccttctgaga tgtttggttag 180
gaagtctggg tccaggggat atcattttctt gttccatcca tgcagggggtt gcttacctcg 240
ggtaggaaac cctcaggcgg tggcaggtgc acaggtaggg gaggatggag agggcagtg 300
tgcctgaagc cctggatggg cggagctgac cccccaacac caactctatc atgcctgctc 360
ctccctgtcc cccagagct gcctgatcat tgctacagaa tgaactctag cccagctggg 420
acccaagtc cacagccctc cagggccaat gggaacatca acctggggcc ttcagccaac 480
ccaaatgccc agcccacgga cttcgacttc ctcaaagtca tcggcaaagg gaactacggg 540
aaggctctac tggccaagcg caagtctgat ggggcgttct atgcagtga ggtactacag 600
aaaaagtcca tcttaaagaa gaaagagcag agccacatca tggcagagcg cagtgtgctt 660
ctgaagaacg tgcggcacc cttcctcgtg ggctgcgct actccttcca gacacctgag 720
aagctctact tcgtgctcga ctatgtcaac gggggagagc tcttcttcca cctgcagcgg 780
gagcgccggg tcctggagcc ccgggccagg ttctacgctg ctgaggtggc cagcgccatt 840
ggctacctgc actccctcaa catcatttac agggatctga aaccagagaa cattctcttg 900
gactgccagg gacacgtggt gctgacggat tttggcctct gcaaggaagg tgtagagcct 960
gaagacacca catccacatt ctgtggtacc cctgagtact tggcacctga agtgcttcgg 1020
aaagagcctt atgatcgagc agtggactgg tgggtgcttg gggcagtcct ctacgagatg 1080
ctccatggcc tgcgcctt ctacagccaa gatgtatccc agatgtatga gaacattctg 1140
caccagccgc tacagatccc cggaggccgg acagtggccg cctgtgacct cctgcaaagc 1200
cttctccaca aggaccagag gcagcggctg ggctccaaag cagactttct tgagattaag 1260
aaccatgtat tcttcagccc cataaactgg gatgacctgt accacaagag gctaactcca 1320
cccttcaacc caaatgtgac aggacctgct gacttgaagc attttgacc agagttcacc 1380
caggaagctg tgtccaagtc cattggctgt acccctgaca ctgtggccag cagctctggg 1440
gcctcaagtg cattcctggg attttcttat gcgccagagg atgatgacat cttggattgc 1500
tagaagagaa ggacctgtga aactactgag gccagctggt attagtaagg aattaccttc 1560
agctgctagg aagagcgact caaactaaca atggcttcaa cgagaagcag gtttattttt 1620
tccagcacat aaaagaaaaa taatgtttcg gagtccagga ctggcaggac aggtcatcag 1680
atactcagag gctgtatctc tgcctgcca accttgacaa atggcttcca atgttaggtt 1740
tgctacaaga tggttactgg agctctagct gcctattttg tgtttaggga agggaaaatg 1800
gaggaaaggg gagaagagca aagggcgctt ttaaagagct tcccaaaaag ctccccccaa 1860
tgacttttgc ttccatctca ctaaccacc acccctacct ggaatggagg ctgggaaatg 1920
tggtttattt gctgggtacg tgactatccc taataacaaa ggggttttga cctaagaca 1980
ttaggggaga atgttgggtg ggcagccagc cctcttttac catagggcct cctggtgttt 2040
ggattttgat ctcaatgtgt aaaatgacag agatgtaaca agctcatagg gtatcaatat 2100
ctcttattgt tctatgttga aaaaaaaaaa aaaaaaaaaa aaaaaa 2146

```

<210> 6

<211> 2404

<212> DNA

<213> Homo sapiens

<400> 6

```

ggtgtgctct tgagggatta aatgcaaaga gatcacacca tggactacaa ggaaagctgc 60
ccaagtgtaa gcattccag ctcgatgaa cacagagaga aaaagaagag gtttactgtt 120
tataaagttc tggtttcagt gggaagaagt gaatggtttg tcttcaggag atatgcagag 180
tttgataaac ttataaacac tttaaaaaaa cagtttcctg ctatggcct gaagattcct 240
gccaagagaa tatttgggtg taattttgat ccagatttta ttaacaaaag acgagcagga 300
ctaaacgaat tcattcagaa cctagttagg tatccagaac ttataacca tccagatgtc 360

```

```
<210> 7
<211> 1834
<212> DNA
<213> Homo sapiens
```

8

ttaaagaaga aagagcagag ccacatcatg gcagagcgca gtgtgcttct gaagaacgtg 360
 cggcacccct tcctcgtggg cctgcgctac tccttccaga cacctgagaa gctctacttc 420
 gtgctcgact atgtcaacgg gggagagctc ttcttccacc tgcagcggga gcgccgggttc 480
 ctggagcccc gggccagggt ctacgctgct gaggtggcca gcgccattgg ctacctgcac 540
 tccctcaaca tcatttacag ggatctgaaa ccagagaaca ttctcttggga ctgccaggga 600
 cacgtggtgc tgacggattt tggcctctgc aaggaagggt tagagcctga agacaccaca 660
 tccacattct gtggtacccc tgagtacttg gcacctgaag tgcttcggaa agagccttat 720
 gatcgagcag tggactggtg gtgcttgggg gcagtcctct acgagatgct ccatggcctg 780
 ccgcccttct acagccaaga tgtatcccag atgtatgaga acattctgca ccagccgcta 840
 cagatccccg gaggccggac agtggccgcc tgtgacctcc tgcaaagcct tctccacaag 900
 gaccagaggc agcggctggg ctccaaagca gactttcttg agattaagaa ccatgtattc 960
 ttcagcccca taaactggga tgacctgtac cacaagaggc taactccacc cttcaaccca 1020
 aatgtgacag gacctgctga cttgaagcat tttgaccag agttcaccca ggaagctgtg 1080
 tccaagtcca ttggctgtac ccctgacact gtggccagca gctctggggc ctcaagtgca 1140
 ttcttgggat tttcttatgc gccagaggat gatgacatct tggattgcta gaagagaagg 1200
 acctgtgaaa ctactgagge cagctggtat tagtaaggaa ttaccttcag ctgctaggaa 1260
 gagcgactca aactaacaat ggcttcaacg agaagcaggt ttattttttc cagcacataa 1320
 aagaaaaata atgtttcgga gtccaggact ggcaggacag gtcacagat actcagaggc 1380
 tgtatctctg ccctgccaac cttgacaaat ggcttccaat gttagggttg ctacaagatg 1440
 gttactggag ctctagctgc ctattttgtg tttagggaag ggaaaatgga ggaaagggga 1500
 gaagagcaaa gggcgctttt aaagagcttt cccaaaagct ccccccattg acttttgctt 1560
 ccatctcact aaccacccac ccctacctgg aatggaggct gggaaatgtg gcttattttg 1620
 tgggtacgtg actatcccta ataacaaagg ggttttgacc ctaagacatt aggggagaat 1680
 gttgggtagg cagccagccc tctttttacca tagggcctcc tgggtgtttg attttgatct 1740
 caatgtgtaa aatgacagag atgtaacaag ctcatagggg atcaatatct cttattgttc 1800
 tatgttgaaa aaaaaaaaaa aaaaaaaaaa aaaa 1834

<210> 8

<211> 427

<212> PRT

<213> Homo sapiens

<400> 8

Met Gln Gly Leu Leu Thr Ser Gly Arg Lys Pro Ser Gly Gly Gly Arg

1

5

10

15

Cys Thr Gly Arg Gly Gly Trp Arg Gly Gln Trp Cys Leu Lys Pro Trp

20

25

30

Met Gly Gly Ala Asp Pro Pro Thr Pro Thr Leu Ser Cys Leu Leu Leu

35

40

45

Pro Val Pro Pro Glu Leu Pro Asp His Cys Tyr Arg Met Asn Ser Ser

50

55

60

Pro Ala Gly Thr Pro Ser Pro Gln Pro Ser Arg Ala Asn Gly Asn Ile

65

70

75

80

Asn Leu Gly Pro Ser Ala Asn Pro Asn Ala Gln Pro Thr Asp Phe Asp
85 90 95

Phe Leu Lys Val Ile Gly Lys Gly Asn Tyr Gly Lys Val Leu Leu Ala
100 105 110

Lys Arg Lys Ser Asp Gly Ala Phe Tyr Ala Val Lys Val Leu Gln Lys
115 120 125

Lys Ser Ile Leu Lys Lys Lys Glu Gln Ser His Ile Met Ala Glu Arg
130 135 140

Ser Val Leu Leu Lys Asn Val Arg His Pro Phe Leu Val Gly Leu Arg
145 150 155 160

Tyr Ser Phe Gln Thr Pro Glu Lys Leu Tyr Phe Val Leu Asp Tyr Val
165 170 175

Asn Gly Gly Glu Leu Phe Phe His Leu Gln Arg Glu Arg Arg Phe Leu
180 185 190

Glu Pro Arg Ala Arg Phe Tyr Ala Ala Glu Val Ala Ser Ala Ile Gly
195 200 205

Tyr Leu His Ser Leu Asn Ile Ile Tyr Arg Asp Leu Lys Pro Glu Asn
210 215 220

Ile Leu Leu Asp Cys Gln Gly His Val Val Leu Thr Asp Phe Gly Leu
225 230 235 240

Cys Lys Glu Gly Val Glu Pro Glu Asp Thr Thr Ser Thr Phe Cys Gly
245 250 255

Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Arg Lys Glu Pro Tyr Asp
260 265 270

Arg Ala Val Asp Trp Trp Cys Leu Gly Ala Val Leu Tyr Glu Met Leu
275 280 285

His Gly Leu Pro Pro Phe Tyr Ser Gln Asp Val Ser Gln Met Tyr Glu
290 295 300

Asn Ile Leu His Gln Pro Leu Gln Ile Pro Gly Gly Arg Thr Val Ala
305 310 315 320

Ala Cys Asp Leu Leu Gln Ser Leu Leu His Lys Asp Gln Arg Gln Arg
325 330 335

Leu Gly Ser Lys Ala Asp Phe Leu Glu Ile Lys Asn His Val Phe Phe
 340 345 350

Ser Pro Ile Asn Trp Asp Asp Leu Tyr His Lys Arg Leu Thr Pro Pro
 355 360 365

Phe Asn Pro Asn Val Thr Gly Pro Ala Asp Leu Lys His Phe Asp Pro
 370 375 380

Glu Phe Thr Gln Glu Ala Val Ser Lys Ser Ile Gly Cys Thr Pro Asp
 385 390 395 400

Thr Val Ala Ser Ser Ser Gly Ala Ser Ser Ala Phe Leu Gly Phe Ser
 405 410 415

Tyr Ala Pro Glu Asp Asp Asp Ile Leu Asp Cys
 420 425

<210> 9

<211> 73

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 9

acacggatcc gccaccatgt atccatatga tgttcagat tatgctacgg tgaaaactga 60
 ggctgctaag ggc 73

<210> 10

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 10

acacggtacc gtcgactcag aggaaagagt ccgtgggagg 40

<210> 11

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 11

gatctcggat ccactaacgg tac

23

<210> 12

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 12

cgttagtgga tccga

15

<210> 13

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 13

gctctggact tgggggtccca gctgggc

27

<210> 14

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 14

gttgatgttc ccattggccc tggaggg

27

<210> 15

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 15

gctgggcatt tgggttggct gaaggcc

27

<210> 16

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 16

aacatccggtt tttggttgga ttgc

24

<210> 17

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 17

gggtagatgt tagtgtaaac

20

<210> 18

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 18

ataaagttct ggatacctaa ctagg

25

<210> 19

<211> 26

<212> DNA

<213> Artificial Sequence /

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 19

gaaggaatgc tctgacatct ggatgg

26

<210> 20

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 20

gatctgactg gtgttttgga ctgtcc

26

<210> 21

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 21

ggatccagct gcctgatcat tgctac

26

<210> 22

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 22

gcggccgcct agcaatccaa gatgtcatc

29

<210> 23

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 23

ggatcccagg ggttgcttac ctcggg

26

<210> 24

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 24

gcggccgcct agcaatccaa gatgtcatc

29

<210> 25

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 25

ggatccaagc cctgaagaag attcctgcc

29

<210> 26

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 26

ggatccaagc cctgaagaag attcctgcc

29

<210> 27

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 27

gcggccgctc acaaaaataa gtcttc

26

<210> 28

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 28

ggatcctgga cagtcacaaa caccag

26

<210> 29

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PCR primer

<400> 29

gcggccgctc acaaaaataa gtcttc

26

<210> 30

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:synthetic
peptide

<400> 30

Gly Arg Pro Arg Thr Ser Ser Phe Ala Glu Gly

1

5

10

<210> 31

<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 31
Arg Pro Arg Thr Ser Ser
1 5

<210> 32
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 32
Arg Pro Arg Thr Ser Ala Phe
1 5

<210> 33
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 33
Pro Arg Thr Ser Ser Phe
1 5

<210> 34
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic

peptide

<400> 34

Arg Pro Arg Thr Ser Ser

1

5

<210> 35

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:synthetic
peptide

<400> 35

Arg Pro Arg Thr Ser Thr Phe

1

5

<210> 36

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:synthetic
peptide

<400> 36

Arg Pro Arg Ala Ala Thr Phe

1

5

<210> 37

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:synthetic
peptide

<400> 37

Lys Pro Arg Thr Ser Ser Phe

1

5

<210> 38
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 38
Arg Pro Lys Thr Ser Ser Phe
1 5

<210> 39
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 39
Arg Pro Arg Thr Ser Ser Phe
1 5

<210> 40
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 40
Arg Pro Arg Thr Ser Ser Leu
1 5

<210> 41
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 41
Arg Pro Arg Thr Ser Ser Val
1 5

<210> 42
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 42
Arg Pro Arg Thr Ser Ser Ala
1 5

<210> 43
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 43
Arg Pro Arg Thr Ser Ser Lys
1 5

<210> 44
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthetic
peptide

<400> 44
Arg Pro Arg Thr Ser Ser Glu

1

5

61
cont.